SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

The study was designed to find out the isolated and combined effects of circuit resistance and aerobic training on performance parameters of college men. For this purpose, one hundred and twenty men students from Sri Venkateswara Oriental College, Tirupati, Sri Venkateswara Arts College, Tirupati and Sri Govindaraja Swamy Arts Colleges Tirupathi, Andhra Pradesh, India were randomly selected as subjects for the study and their age was between eighteen and twenty two years. The study was formulated as pre and post test random group design, in which one hundred and twenty men were divided into four equal groups. The experimental group – 1 (n = 30 CRT group) underwent circuit resistance training, the experimental group – 2 (n = 30 AT group) underwent aerobic training, the experimental group – 3 (n = 30 CRT+AT group) underwent combined circuit resistance and aerobic training and group 4 served as control group (n= 30, CG) who did not undergo any specific training. Based on the relevant literature reviewed and in accordance with views of professional experts in physical education, the following independent and dependent variables were selected. In the study, three different training approaches were adopted as independent variables, i.e., Circuit Resistance Training (CRT), Aerobic Training (AT) and combined Circuit Resistance and Aerobic Training (CRT&AT). The following performance parameters were selected as dependent variables. They were listed as follows, speed, cardio respiratory endurance, muscular strength endurance, muscular strength, explosive power and agility. The present study was undertaken primarily to assess the isolated and combined effects of circuit resistance and aerobic training on performance parameters such as speed, cardio respiratory endurance, muscular strength endurance, muscular strength, explosive power and agility. As per the available literatures, the following tests were used to collect relevant data on the selected dependent variables. As far as the performance parameters were concerned the speed, cardio respiratory endurance, muscular strength endurance, muscular strength, explosive power and agility, were tested and measured by 50 meters run (in seconds), cooper’s 12 minutes run/walk (in meters), modified bent knee sit-ups (in counts), pushups (in numbers), standing broad jump (in meters) and agility (in seconds).
respectively. All the subjects of four groups were tested on selected dependent variables at prior to and immediately after the training programme. The analysis of covariance was used to analyze the significant difference, if any among the groups. Since four groups were compared, whenever they obtained F ratio for adjusted post test was found to be significant, the scheffe’s test was applied to find out the paired mean differences, if any. The 0.05 level of confidence was fixed as the level of significant to test the F ratio by the analysis of covariance which was considered as appropriate.

5.2 CONCLUSIONS

In the light of above findings of the present study the following conclusion have been drawn:

1. The circuit resistance training, aerobic training and combined circuit resistance and aerobic training have produced significant improvement on performance variables of college men than the control group.

2. The combined circuit resistance and aerobic training were produced greater improvement on speed, cardio respiratory endurance, muscular strength endurance, muscular strength, explosive power and agility than circuit resistance training and aerobic training of college men.

3. The circuit resistance training was produced better improvement on speed, muscular strength endurance and explosive power than the aerobic training.

4. The aerobic training was highly favored on cardio respiratory endurance, muscular strength and agility than circuit resistance training.

5. There was no improvement on control group of selected variables.
5.3 RECOMMENDATIONS

As hypothesized by the researcher that combination of combined and isolated circuit resistance and aerobic training programmes had a higher magnitude of changes in speed, cardio respiratory endurance, muscular strength, muscular strength endurance, leg explosive power and agility of college men, over the twelve weeks of training period. Hence these training programmes could be performed weekly, bi-weekly or monthly depending upon the individual needs for better benefit.

For a personal trainer, it is important to observe from the results of the study that how the volume of exercises and the training variations play a vital role in the modulation of exercises. Stress and recovery pattern which ultimately leads to greater variation adaptations. Therefore the combined circuit resistance and aerobic training were produced greater improvement and dominated all performance variables than the other training interventions. Hence the combined training interventions were recommended to achieve the maximum performance of the parameters namely speed, cardio respiratory endurance, muscular strength, muscular strength endurance, leg explosive power and agility of the college men.

The following recommendations have been made from the results of the study.

1) Similar studies may be conducted a school level students.

2) Similar studies may be conduct on athletes.

3) Similar studies may be conducted on college women students.

4) A similar study may be conducted on various teams of sports.

5) Similar studies may be conducted on physiological parameters.

6) Similar studies may be conducted on bio chemical variables.
5.4 SUGGESTIONS FOR FUTURE RESEARCH

1. The aerobic training programmes suggested for those students interested in developing the basic aerobic fitness qualities.

2. The aerobic training programmes suggested for junior athletes who are aiming to develop their basic and specific endurance qualities.

3. The aerobic training programmes are suggested for grassroots level sports practitioners, who need good cardio respiratory types of activities.

4. The increasing intensity and volume of the selected aerobic training is favored the elite level sports participants to enhance their high level of cardiovascular and cardio respiratory efficiency.

5. These circuit resistance training approaches are suggested for young children to maintain their physical and mental qualities.

6. The circuit resistance training intervention can be too adopted by the pubertal population for maintaining their good muscular structure.

7. The increasing intensity and volume of the selected circuit resistance and aerobic training are suggested to the elite level sports participants to enhance their maximal level achievements.

8. The combined training intervention is suggested to those students interested in combined events.

9. The combined training protocol is suggested to develop the specific aerobic and anaerobic types of fitness qualities.

10. The combined training approaches are suggested for the development of specific strength and endurance qualities before the competition phases.